

REMARKS

In the previous response, claim 31 was inadvertently mis-numbered. The next sequential claim number should have been 30. The Office Action lists claim 30 in its recitation of claims. Applicants assume the claim presented as 31 was renumbered to 30.

The Office Action asserts that the term "thread" is allegedly not clearly defined, and thereby objects to claims 1-5, 8-16, and 19-30. Applicants use the term "thread" in accordance with its accepted usage in the art as well as its common meaning. Exemplary common definitions for thread include "the way that a number of ideas, events, etc. are joined together in a single line of thought" (Webster's New World Dictionary) and "the connections that link the various parts of an event or argument together" (Worldnet® 1.6 – Princeton University). Applicants generate "characteristic threads" that "identify common characteristics of the wafers involved in the drift" (p. 11, l. 18). Hence, the threads identify common characteristics of the items, which is consistent with the common usage of the term. The adjective "characteristic" that modifies "thread" adds clarity by describing that the common theme in a thread relates to a characteristic of the items compared. Applicants respectfully request the objection to these claims be withdrawn.

Claims 1, 6, 7, 8, 12, 17, 18, and 23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,580,960 (Nicholson). Claims 2 and 13 stand rejected under 35 U.S.C. § 103(a) as being obvious over Nicholson in view of United States Patent No. 5,886,909 (Milor). Claims 3-5, 9-11, 14-16, and 19-22 were determined to be allowable if rewritten independent form.

Claim 8 was canceled. The specification was amended on pages 11, 12, and 13 to correct typographical errors.

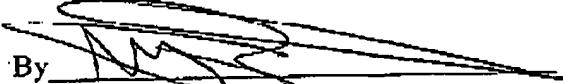
Independent Claims 1, 12, and 23, as amended, include the general features of identifying manufactured items associated with a process drift, generating a plurality of characteristic threads based on the production environment data, at least one of the characteristic threads being associated with other than processing tools used in the process flow, comparing the characteristic threads for at least those manufactured items associated with the process drift, and determining at least one potential cause for the process drift based on the comparison of the characteristic threads.

Nicholson and Milor fail to teach or suggest generating characteristic threads not associated with processing tools. The Office Action asserts that Nicholson teaches generating characteristic threads associated with other than processing tools. To the contrary, Nicholson is directed exclusively to identifying common process tools involved with a fault. The passage cited by the examiner only recognizes that some defects may be caused by a mechanical problem with the tool or a problem with a solution used in a tool. Regardless of the underlying cause, Nicholson identifies the tool histories and identifies a particular tool likely to have caused the defect condition. Hence, Nicholson only generates threads based on processing tool history. After the tool is identified, the failure signature may be used to determine if the fault is a mechanical fault with the tool or a processing fault with the tool, but regardless, the fault is still with the tool. Nicholson does not teach or suggest generating characteristic threads associated with other than processing tools. Accordingly, claims 1, 12, 23, and all claims depending therefrom, are allowable. Applicants respectfully request that the rejection of these claims be withdrawn.

In view of the remarks set forth herein, the application is believed to be in condition for allowance and notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to contact the undersigned attorney at (608) 833-0748 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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